

# Computer Science 30

---

Teacher: Mr. Birrell

Room

## Content

### Fundamentals of Programming

- Explore the syntax of C# and implement effective coding practices
- Investigate types of data structures and the advantages of organizing data in different ways
- Create programs that utilize external files and libraries
- Explore and create programs utilizing recursion
- Investigate a variety of sorting algorithms
- Explore the concepts and principles of the object-oriented programming paradigm
- Engage in collaborative programming development practices

### Number Systems

- Explore number systems and character representations used in computing

### Capstone Coding Project

- Create a large-scale computer program to demonstrate proficiency in object-oriented programming

## Evaluation

Semester Work:	45%
Exams:	30%
Final Project:	25%

## Helpful Things to Have

- Something to write with
- Something to write on
- Scientific Calculator
- Memory Stick
- A working brain

## Expectations

- 1) Come to class prepared.
- 2) Do daily assignments all the time.
- 3) Hand in all assignments on time.
- 4) Eat food outside of the classroom rather than inside.
- 5) Treat the school computers better than you treat your own.

## Late Admittance

If the door is open you are permitted to quietly enter the room and find your seat. If the door is closed knock **once** and wait for the teacher to open the door.

## Missed Evaluations

Any missed evaluations are expected to be completed the day the student returns.

Unexcused absences will result in a mark of zero for any work due or completed on that day.

## Resources

Class wiki: <http://mrbirrell.wikispaces.com/>

Resource: A C# Crash Course <http://rbwhitaker.wikidot.com/c-sharp-tutorials>

## Course Finalization

There will be no formal comprehensive written final exam in this class. Students will be expected to produce a programming project that will reflect their level of programming expertise at the end of the course.

## Acceptable Use Policy

School computers are for School related work only. This applies to ALL times of the day (including lunch). Any blatant offence (even the first offence) will result in the withdrawal of computer privileges. A letter will be sent to your parents. It must be signed and returned to the office before computer privileges will be returned.

Here are some guidelines to help understand the policy:

1. Streaming audio:
  - a. The AUP states that the computers are not to be used as a personal music player.
  - b. If you need to find music on the Internet, ask for permission first.
  - c. Best practice: Bring your own personal player and earphones.
2. Streaming video:
  - a. The AUP prohibits any unauthorized streaming video. This places the largest demand on our network resources.
  - b. Ask permission before watching any streaming video.
  - c. Best practice: After getting permission, use earphones so you don't infringe upon others.
3. Games:
  - a. Unless assigned by a teacher, games are prohibited.
  - b. This will be the most obvious example of a blatant AUP violation.
  - c. Best practice: Save your game playing for home.
4. Personal use:
  - a. The AUP is very clear about not using school computers for personal use.
  - b. Personal use usually includes:
    - i. Checking e-mail messages.
    - ii. Facebook / Twitter
    - iii. Personal interests (cars, bathing suits, shoes, jokes, cats)